

Exploring the Relationship Between Students Needing Accommodations and Instructor Self-Efficacy in Complying With Accommodations

Anna M. Wright^{*,a}, Kevin R. Meyer^a

^aSchool of Communication, Illinois State University, USA

Submitted: April 15, 2017 | **Peer Reviewed:** May 3, 2017 | **Accepted:** May 12, 2017 | **Published:** June 30, 2017

Abstract: The willingness and flexibility of university instructors to comply with and provide accommodations for students with disabilities is critical to academic success. The authors examine how communication between students needing accommodations and university instructors impacts instructor self-efficacy, or instructors' perception that they can meet the accommodation. Specifically, the authors' explored the relationship between student self-disclosure of a disability and instructor empathy, flexibility, and self-efficacy in meeting student accommodation needs. Results revealed that the more a student self-discloses about a needed accommodation, the more self-efficacy an instructor has in making that accommodation. For the low-disclosure condition, empathy and flexibility were both significant predictors of self-efficacy, whereas, for the high-disclosure condition, only flexibility was a significant predictor of self-efficacy. Finally, instructors' levels of empathy and flexibility both decreased after reading both the high and low self-disclosure scenarios.

Keywords: students with disabilities, self-disclosure, empathy, accommodations, self-efficacy

Introduction

University instructors regularly encounter students with disabilities in their classrooms, and in the 2011–2012 school year, 11% of undergraduates self-reported having a learning disability; a number that continues to increase (Hadley, 2016; National Center for Education Statistics, 2014). There are students who have not reported their disabilities to their institution as it is not required to do so (Lynch & Gussel, 2001). In fact, nearly two thirds of students on college campuses choose not to disclose their disabilities (Newman & Madaus, 2015), and may not be receiving needed accommodations due to the nondisclosure. Legislation requires that instructors provide reasonable accommodations to students with documented needs (Americans With Disabilities Act of 1990). Since instructors encounter these students regularly and are required to accommodate them, a greater understanding of this population is needed.

Many researchers have focused on how university students with disabilities perceive their interactions with instructors (Cornett-DeVito & Worley, 2005; Frymier & Wanzer, 2003), how faculty perceive students with disabilities and their accommodations (Bento, 1996; Murray, Flannery, & Wren, 2008; Murray, Wren, & Keys, 2008), and how students can advocate for themselves in higher education (Palmer & Roessler, 2000; Roberts, Ju, & Zhang, 2016; Test, Fowler, Wood, Brewer, & Eddy, 2005). However, researchers have yet to identify what information instructors need to proactively meet student accommodations. Researchers have shown that university faculty understand the need to accommodate students with learning disabilities, but faculty are often uncertain how to do so (Murray, Wren, et al., 2008). When students may advocate for themselves, how their instructors respond could have implications for future student

*Author correspondence: amwrigh@ilstu.edu

self-advocacy. Instructors' reactions could be based on a lack of understanding of disabilities and their implications, as well as not clearly understanding the legislative mandates (Bento, 1996). One variable that could impact effective communication between faculty and students with disabilities in providing accommodations is instructor self-efficacy. Instructor self-efficacy, or an instructor's belief that he or she has the ability to meet the student's accommodation needs, may be dependent on instructor empathy and flexibility, and student self-disclosure could affect instructor self-efficacy. Due to instructors' lack of knowledge regarding accommodations and the legal requirements surrounding them, instructors often lack self-efficacy working with students needing accommodations (Bento, 1996). Therefore, identifying how instructor self-efficacy can be increased is crucial.

Despite that there are laws requiring instructors to provide accommodations, some may begrudgingly comply (Cornett-DeVito & Worley, 2005). To better understand possible instructor reticence in meeting student accommodations, this study was conducted to examine the impact of student self-disclosure of needed accommodations on instructor self-efficacy in making those accommodations. The purpose is to determine if the amount of information students self-disclose can impact instructors' beliefs that they can make the accommodations. This research will benefit postsecondary instructors, education and communication researchers, and students needing accommodations.

Review of Literature

With an understanding of what impacts university instructors' self-efficacy for making accommodations, educators may be able to further develop models of advocacy to teach students how to communicate with instructors in a manner that will benefit both students and instructors.

Students Needing Accommodations

A disability is defined as "(a) a physical or mental impairment that substantially limits one or more major life activities of such individual; (b) a record of such an impairment; or (c) being regarded as having such an impairment" (Americans With Disabilities Act 1990, 2008, p. 7). Section 504 of the act states that "no qualified individual with a disability in the United States shall be excluded from, denied the benefits of, or be subjected to discrimination" (p. 16) in any program that receives federal funding. Postsecondary institutions and instructors have a responsibility to provide needed accommodations for students with disabilities.

Disclosure is defined as the act of sharing personal information with another person, and disclosure is classified as high or low. Low self-disclosure is giving only the minimum amount of information legally required to receive an accommodation; whereas high self-disclosure is telling instructors information beyond what is legally required in order to help contextualize the accommodation and why it is needed. With disabilities in the workplace, Price and Gerber (2001) found that self-disclosure could have positive or negative effects, and employees should weigh the pros and cons of both disclosing and not disclosing within the company for which they work. Thus, disclosure is frequently viewed as disadvantageous, as nearly half of college graduates did not disclose their disabilities to employers for fear of a negative reaction (Madaus, Foley, McGuire, & Ruban, 2002). Other reasons students may not disclose their learning disabilities is because they may view it as stigmatizing (Hartman-Hall & Haaga, 2002), they may see it as a sign of failure, or they are too afraid to ask for needed accommodations (Denhart, 2008). By not disclosing their disabilities and seeking the services they need, individuals needing accommodations are creating a greater disability for themselves and putting themselves at a

greater disadvantage (Denhart, 2008). Thus, it is beneficial for students to disclose their disabilities in order to be most successful.

Since self-disclosure proves beneficial to students needing accommodations and enables students to meet their unique academic needs, students are frequently taught self-disclosure skills as a means of advocating for themselves. In a study on self-disclosure in the workplace, Price and Gerber (2001) asserted that how and when self-disclosure occurs could be vital to the success of such efforts. If a university student needing an accommodation receives a negative reaction from an instructor, the student is less likely to disclose the disability again (Hartman-Hall & Haaga, 2002). Skills taught to enhance self-disclosure include teaching college students to understand their rights and responsibilities, conflict resolution skills (Palmer & Roessler, 2000), knowledge of their disabilities, and leadership skills (Roberts et al., 2016; Test et al., 2005). Problematically, while there are many studies that intend to determine effective models of self-disclosure, none of these models consider how instructors respond to student self-disclosure. The present study seeks to determine when and how student disclosure of disability information and needs may decrease instructors' uncertainty about their ability to fully meet accommodation requests.

Providing appropriate accommodations enables students to articulate what they already know (Barrett, 1997). Accommodations are alterations in the environment, content, or curriculum that enable students with disabilities to perform tasks assigned by instructors without requiring modifications that change the grading standards or procedures (Disabilities, Opportunities, Internetworking, and Technology, 2015). At the university involved in the present study, any student who identifies as having a disability is required to provide proper medical documentation of that disability to the Disability Concerns office. The Disability Concerns office determines the appropriate accommodation for each student individually and provides the means for receiving those accommodations on a case-by-case basis. Some examples of accommodations include separate exam rooms, extended time on exams, reader and scribe for exams, note takers, typists, accessible seating, interpreters, real-time captioning, electronic texts, assistive technologies, and library assistance. This list is not exclusive and accommodations may exceed those listed here, as they are granted based on the needs of individual students. Once a student needing an accommodation has a documented disability and the appropriate accommodations are determined, the next step is to communicate that disability to the appropriate instructor. However, there are several instructor variables that may contribute to how university instructors handle accommodation requests, including empathy, flexibility, instructor self-efficacy, and communication.

Empathy

Empathetic teaching is defined as "trying to understand another person's feelings and thoughts without losing sight of the differences between self and other" (Berman, 2004, p. 32). Instructors can show empathy to their students by teaching to students' specific learning styles and providing opportunities that challenge students but allow them to be successful (Powell & Powell, 2010). Through empathy, individuals better understand others and are able to create stronger relationships. Good instructors understand the manner in which their students learn best, so they can adjust accordingly and accommodate the students naturally ("Integrating Reasonable Accommodations," 1997). If instructors cannot identify the needs of the students, they will have difficulty meeting those needs. University instructors may not have struggled academically in the classroom themselves, and they may have a hard time empathizing with students (Frymier & Wanzer, 2003). A lack of empathy can cause university instructors to be unable to identify with students' needs concerning appropriate accommodations (King, Aguinaga, O'Brien, Young, &

Zgonc, 2010). When professors do not empathize with students needing accommodations, this can be detrimental to the students.

Flexibility

For instructors to effectively work with students needing accommodations, they must be flexible in their course policies and teaching styles. To meet the needs of diverse learners instructors need to abandon the idea that one type of teaching can serve all learners (Powell & Powell, 2010). Universal Design Learning (UDL) is a curriculum that acknowledges that each student has a unique learning style, and UDL provides a means for all students to learn by requiring that instructors provide multiple and flexible formats for delivering information, assessing students, and motivating students to learn (Powell & Powell, 2010). Universal learning models allow instructors to think of how accommodations for specific students may benefit everyone and then, in turn, they can make those accommodations for everyone, allowing everyone to benefit from differentiated instruction (Burgstahler & Russo-Gleicher, 2015). This requires instructors to adjust their curriculum for students “rather than expecting students to modify themselves for the curriculum” (Hall, Strangman, & Meyer, 2003, p. 2). Faculty need to be flexible early on in course planning: they should consider course objectives and then establish a number of ways that the objectives could be met—taking into account the individual differences of students and the likelihood of students with accommodations taking the course and then capitalizing on several learning methods.

Although there may be resistance among instructors to practice UDL, some instructors have found benefits to having students with accommodations in their classrooms. Accommodations simply give everyone an equal opportunity to learn, and instructors have found that the adaptations they made for some students in the class have helped all students learn (Baer, 1997). Some instructors have noted that having students with disabilities in their classrooms requires them to pay more attention to the way they teach, which has improved their teaching (Scott & Gregg, 2000). Students with accommodations have suggested there may be benefits to making accommodations for all students. According to Quinlan, Bates, and Angell (2012), students with accommodations suggested that instructors make accommodations for all students, regardless of documentation, since all students have different learning styles. Further, students with accommodations have suggested that instructor flexibility and openness to work with them has increased the likelihood that they will disclose their need for an accommodation (Cole & Cawthon, 2015). Since disabilities are often stigmatizing, students may not always identify themselves as having a disability, but an instructor’s willingness to accommodate all learning styles can negate the need for student disclosure as accommodations have already been provided. These benefits further illustrate the positive impact of instructor flexibility.

Instructor Self-Efficacy

The instructor characteristics of empathy and flexibility contribute to self-efficacy, which is important to effective teaching. Self-efficacy is defined as “beliefs in one’s capabilities to organize and execute the courses of action required to produce given attainments” (Bandura, 1997, p. 3). It is comprised of individuals’ belief in their ability to succeed, including instructors’ beliefs that they are capable of producing a desired outcome (Bandura, 1997). Self-efficacy affects an instructor’s actions and can determine the amount of effort and persistency an instructor displays (Leithwood & Beatty, 2008). A lack of instructor self-efficacy may help explain instructors’ uncertainty in being able to effectively provide accommodations for students with disabilities. Instructors with significant instructional self-efficacy tend to identify all students as being teachable through appropriate techniques, and these instructors spend more time helping

students with difficulties (Bandura, 1997). Instructors with less self-efficacy feel that an instructor's influence is minimal if a student is unmotivated and faces external barriers to learning, and those instructors give-up on students sooner (Bandura, 1997). Low self-efficacy may cause instructors to be more pessimistic regarding their students' motivation and to identify low student ability as a reason that students are not learning. High instructor self-efficacy can result in better outcomes for students as those instructors may be more willing to work with, and believe in, a variety of students.

Communication

Communication is central to the relationship between instructors and students with disabilities and accommodations. In order for communication to be effective, the parties involved must think of each other as people first. Effective communicators must be "flexible and possess a variety of communication acts" (Simonds & Cooper, 2011, p. 10). Instructors in higher education are responsible for establishing strong communication dialogues between themselves and students needing accommodations ("Integrating Reasonable Accommodations," 1997). Some professors may have a difficult time negotiating accommodations with students because they have little background in special education, and they may be suspicious of accommodations as something that the student is trying to get just to make things easier (Frymier & Wanzer, 2003).

After understanding an instructor's role in communicating with students needing accommodations, it is important to understand the role of students in this communication encounter. One factor individuals with learning disabilities have to consider is whether or not to disclose their disability, as well as how much information to disclose. It is the responsibility of the student to make an appropriate and timely request for an accommodation, and without self-identifying, institutions are not required to provide accommodations or meet reasonable requests (Newman & Madaus, 2015). Student self-disclosure to an instructor can lead to increased instructor self-efficacy. Instructors have reported that they experienced a positive turning point in their relationship with a student when they learned more about the student (Docan-Morgan, 2011). Learning about a student resulted in an increased liking for the student, which, in turn, resulted in increased instructor self-efficacy. One perspective on student-instructor relationships asserts that the relationship is mutually negotiated and requires instructors to understand students' experiences (Powell & Powell, 2010). Through the process of disclosure, which may enhance instructor self-efficacy, students needing accommodations may increase their chances of academic success. If students provide enough information through self-disclosure to contextualize the reason why their required accommodation is necessary for their academic success, not only may such high levels of self-disclosure enhance instructor self-efficacy in meeting accommodations, but the resulting improvement in the relationship between students and instructors may also aid in reducing the stigmatization of disabilities.

Attribution Theory

How instructors react to accommodation requests can be understood through the lens of attribution theory. Attribution theory, at its most basic level, suggests that individuals seek to understand the cause of other individuals' behaviors (Weiner, 1979). The perceived motivation for an individual's behavior, or what the behavior is attributed to, impacts the response to that individual (Weiner, 1986). This is present in education through student and instructor relationships. When instructors express negative emotions to students, they are likely attributing student behavior to an internal cause, something the student could control. When instructors express positive emotions, they are likely attributing a student's behavior to an external cause, something out of the student's control (Weiner, 2010). The manner in which an instructor

responds to a student sends a message regarding whether or not the instructor feels the student has control over his or her successes or failures (Hunter & Barker, 1987). Instructors should be aware of this when students request accommodations.

Hypothesis and Research Question

Instructors must possess empathy and flexibility in their teaching. These characteristics can enhance instructor self-efficacy working with students needing accommodations. Flexibility may help improve instructor self-efficacy in making accommodations (Orr & Hammig, 2009). Thus, successful flexible teaching models may enhance instructor self-efficacy. Instructor empathy may impact instructor self-efficacy in making accommodations. An empathetic instructor is able to understand students' feelings and thoughts (Berman, 2004). Powell and Powell (2010) suggest that if an instructor truly understands a student's need for accommodations, the instructor will likely have more self-efficacy in making accommodations.

In this study we seek to answer the following question: What instructor characteristics will vary with students' self-disclosure (high versus low) in predicting an instructor's self-efficacy in meeting those accommodations? It is our hypothesis that the level of student self-disclosure regarding a needed accommodation will determine the amount of self-efficacy an instructor has in making that accommodation.

Methods

Instrumentation

The study survey consisted of 34 items on a 5-point Likert scale from 1 (*strongly disagree*) to 5 (*strongly agree*). Six demographic items were also included: biological sex, ethnicity, education level, content area taught, years of teaching, and faculty type (e.g., tenure-track or non-tenure track). Exploratory factor analyses were conducted on these scales, revealing strong validity evidence for the measures. After reverse coding necessary survey items, summated scores were calculated for each scale. The survey items measured *general empathy* (4 items; $\alpha = .75$), *general flexibility* (3 items; $\alpha = .85$), *self-disclosure manipulation check* (5 items; $\alpha = .93$), *scenario empathy* (5 items; $\alpha = .84$), *scenario flexibility* (5 items; $\alpha = .71$), and *scenario self-efficacy* (12 items; $\alpha = .88$).

General empathy was operationalized as the extent to which instructors understand the needs of their students. Example survey items include "Every student deserves to be taught in a manner that best serves them" and "Making accommodations weakens the rigor of a college education." Higher scores indicate higher levels of empathy.

General flexibility was operationalized as how willing the instructor is to alter course policies and procedures to accommodate students. Example items include "I am flexible enough to alter my course to meet students' accommodation needs" and "My course policies allow me to accommodate individual needs of students." Higher scores mean greater flexibility.

The self-disclosure manipulation check scale was operationalized as the amount of information the student told his or her instructor in regard to the accommodation requested. Example items include "Alex provided me with enough information about why she needed an accommodation" and "Alex communicated her accommodation effectively."

Scenario empathy was operationalized as the extent to which instructors understand the needs of their students. This scale was developed to measure if instructors identified with and believed in the student in the scenario. Example survey items include “Alex has the potential to succeed” and “I suspect Alex will abuse the requested accommodation.” Higher scores indicate higher levels of empathy toward the student.

Scenario flexibility was operationalized as how willing the instructors is to change course policies and procedures to accommodate students. This scale was developed to understand if instructors viewed their courses as being flexible enough to meet the needs of the student in the scenario. Example survey items include “Making Alex’s accommodation will decrease the effectiveness of my teaching” and “I am willing to give Alex extra time on tests.” Higher scores indicate the respondent is flexible enough in his or her course design to meet accommodations.

Scenario self-efficacy was operationalized as the extent to which instructors believe they can accommodate the student in the scenario. Example items include “I lack the knowledge to successfully accommodate Alex” and “I do not have enough training to accommodate Alex.” Higher scores mean the respondent had more self-efficacy making the accommodation.

The participants list was randomly divided into two scenarios (high versus. low self-disclosure) in which a student requests an accommodation. Self-disclosure was controlled for in the writing of the scenarios (see Table 1). Some instructors received high self-disclosure scenarios, whereas others received low self-disclosure scenarios. After a series of general questions (general empathy and general flexibility), participants were asked to read a scenario and answer a series of questions regarding making accommodations in that scenario.

Table 1. *Self-Disclosure Manipulation Used in Survey Scenarios.*

Manipulation	Scenario Text from Surveys
High Self-Disclosure	<ul style="list-style-type: none"> Alex is enrolled in your class. After class on the first day, Alex comes to you with a card from disability concerns. Per the accommodations on her card, Alex tells you that she may need to leave class at a moment’s notice, miss class entirely, request a private exam room, require an extension on exams, request permission to turn assignments in late when missing class, and require access to class notes on days she misses. She goes on to explain that although this is hard for her to talk about and something new she is dealing with, she has been diagnosed with an anxiety disorder. This disorder makes her prone to panic attacks, which is why she may need to leave or miss class, resulting in requesting the accommodations. Alex explains that the panic attacks come on suddenly and are the result of anxiety, which she is currently medicated for. She tells you that in the past these attacks have led her to hyperventilate or faint and she has even been hospitalized for her anxiety, thus, she tries to identify the onset of an attack and remove herself from the situation before it becomes worse. Alex tells you that she hates to miss class and is working to control her panic attacks in order to be in class, but sometimes she is overwhelmed with anxiety, and when this is the case, she will let you know what accommodations she needs. When Alex misses class she turns in her assignment late, reminds you of the accommodation, and asks for a copy of class notes. She follows up with you throughout the semester, explaining the anxiety she experienced each time she has missed class or left early. She communicates with you on a regular basis regarding her accommodations.

Low
Self-
Disclosure

- Alex is enrolled in your class. After class on the first day, Alex comes to you with a card from disability concerns. Per the accommodations on her card, Alex tells you that she may need to leave class at a moment's notice, miss class entirely, request a private exam room, require an extension on exams, request permission to turn assignments in late when missing class, and require access to class notes on days she misses.
- When Alex misses class she asks to turn in her assignment late, reminds you of the accommodation, and asks for a copy of class notes.

Data Analysis

An independent samples *t*-test was run to ensure that self-disclosure was manipulated appropriately in the high and low conditions. A second independent samples *t*-test was run to determine if high or low self-disclosure impacted instructor self-efficacy. A one-way ANOVA was run to determine if the high and low survey groups varied on the general trait variables. A correlation was also run to determine if continued education was related to self-efficacy. Two multiple linear regressions were conducted. The first was conducted to determine the predictors of self-efficacy for the low-disclosure survey. The second was conducted to determine the predictors of self-efficacy for the high-disclosure survey. Finally, four paired-samples *t*-tests were run to determine how empathy and flexibility changed from the general scales to the scenario scales on the high- and low-disclosure surveys. Alpha was set at .05 for all tests.

Results

Response Rates

The low-disclosure survey was sent to 356 individuals and 70 completed surveys were returned (21% response rate). Overall, males accounted for 50% of the respondents, and females comprised 45.8% of the respondents. The largest group of respondents had PhDs (66.7%), followed by those with master's degrees (26.4%) and bachelor's degrees (2.7%). One participant on the low-disclosure survey did not respond to either the biological sex or education level questions. The high-disclosure survey was sent to 356 individuals. The number of completed surveys returned was 48 (14% response rate). Males accounted for 50% of the respondents, and females comprised 41.7% of the respondents. The largest group of respondents had PhDs (77.1%), followed by those with master's degrees (12.5%) and bachelor's degree (4.2%). On the high-disclosure survey, four participants failed to respond to the biological sex question, and three failed to answer the education level question.

Self-Disclosure Manipulation Check

An independent samples *t*-test was run to ensure student self-disclosure was manipulated appropriately in the high and low conditions and produced a significant difference between the high self-disclosure ($M = 4.26$; $SD = .75$) and low self-disclosure surveys ($M = 3.19$; $SD = 1.02$), $t(106.64) = 6.36$, $p < .01$. In other words, there was a statistically significant difference between the low-disclosure and high-disclosure surveys, indicating that the manipulation check worked. Thus, self-disclosure was manipulated successfully in both the high- and low-disclosure surveys.

A one-way ANOVA was performed to determine if the means of the general variables were significantly different based on high and low self-disclosure. Results indicated that self-disclosure does not affect general empathy at statistically significant levels: $F(1, 117) = 2.05$, $p = .55$. There

was no statistically significant difference between the low-disclosure surveys ($M = 4.39$; $SD = .58$) and high-disclosure surveys ($M = 4.21$; $SD = .76$). The analysis revealed that self-disclosure does not affect general flexibility at statistically significant levels: $F(1, 117) = .05$, $p = .82$. There was no statistically significant difference between the low-disclosure surveys ($M = 4.23$; $SD = .70$) and the high-disclosure surveys ($M = 4.26$; $SD = .76$). Thus, before reading the scenario, all participants had the same levels of empathy and flexibility.

Student Self-Disclosure and Instructor Self-Efficacy

The hypothesis posited that the level of student self-disclosure regarding a needed accommodation will determine the amount of self-efficacy an instructor has in meeting that accommodation. A second independent samples t-test was run to determine if the high and low-disclosure surveys significantly differed on self-efficacy. The analysis detected a statistically significant difference between the self-efficacy of the high self-disclosure ($M = 3.96$; $SD = .52$) and the low self-disclosure surveys ($M = 3.70$; $SD = .72$), $t(104.91) = 2.15$, $p = .03$. More specifically, there was a statistically significant difference between the self-efficacy of those instructors who received the low-disclosure and high-disclosure surveys. The high self-disclosure survey had a higher mean score than the low self-disclosure survey, meaning that instructors reported that they would demonstrate more self-efficacy when given more information. Thus, the hypothesis was confirmed: student self-disclosure about a needed accommodation does impact the amount of self-efficacy an instructor has in making the accommodation. See Figure 1, which was created by the researchers, for the model of variables predicting self-efficacy.

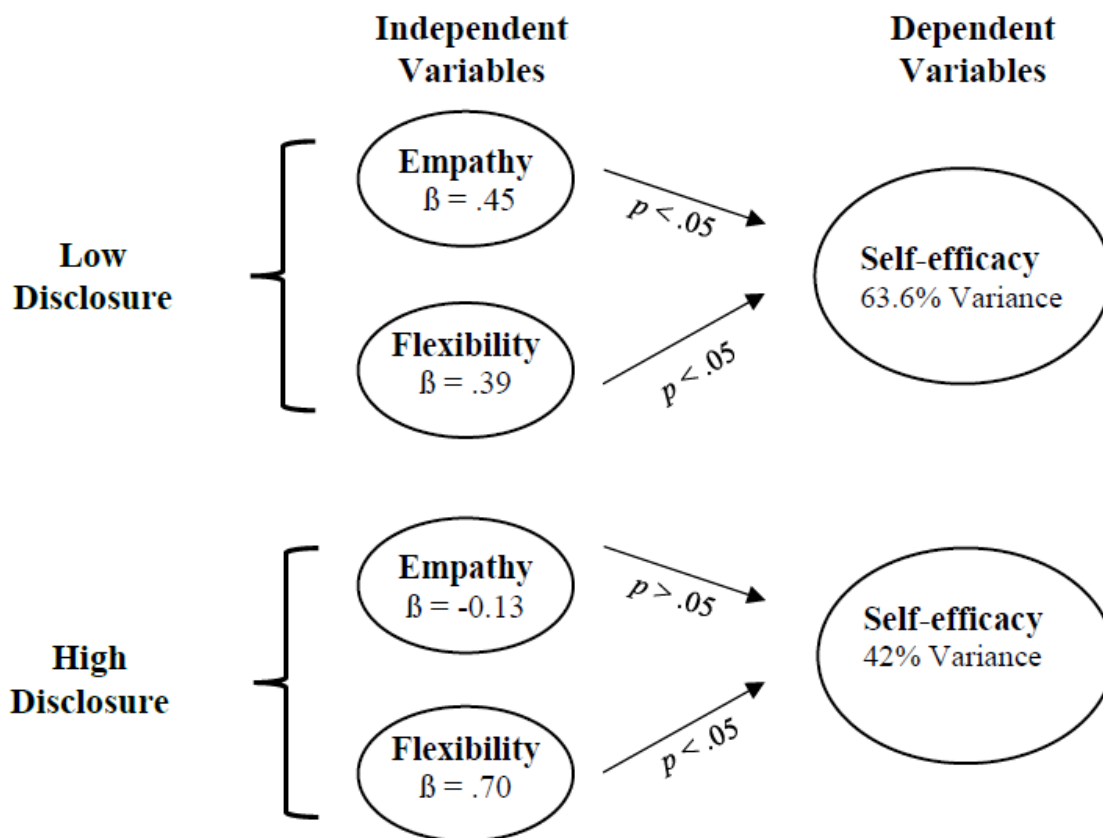


Figure 1. Model of variables predicting self-efficacy.

Student Self-Disclosure & Instructor Characteristics

A multiple regression analysis was conducted to examine the predictors of self-efficacy for the low-disclosure survey. The regression indicated that 63.6% of the variance in self-efficacy could be predicted by scenario empathy and scenario flexibility: $R^2_{adj} = .62$; $F(2, 60) = 52.35$, $p < .01$. Next, an analysis was conducted to determine the amount of self-disclosure accounted for, separately, by scenario empathy and scenario flexibility. Both scenario empathy ($\beta = .45$, $t(62) = 3.48$, $p < .01$) and scenario flexibility ($\beta = .39$, $t(62) = 3.03$, $p < .05$) contributed to the model at statistically significant levels. Scenario empathy is a stronger predictor of self-efficacy than scenario flexibility. Overall, instructors with more empathy and flexibility had more self-efficacy on the low-disclosure survey. See Table 2 for beta weights.

Table 2. *Beta Weights for Low-Disclosure Survey.*

Variable	B	SE B	B
Scenario Empathy	.401	.115	.449*
Scenario Flexibility	.385	.127	.392*
R^2		.636	
R^2_{adj}		.624	
F		52.345	

Note. * indicates a statistically significant predictor variable at $p < .05$.

A second multiple regression analysis was conducted to examine the predictors of self-efficacy for the high-disclosure survey. The regression indicated that 42% of the variance in self-efficacy could be predicted by scenario empathy and scenario flexibility: $R^2_{adj} = .39$; $F(2, 40) = 14.46$, $p < .01$. Next, analysis was conducted to determine the amount of self-disclosure accounted for, separately, by scenario empathy and scenario flexibility. Scenario flexibility ($\beta = .70$, $t(42) = 5.08$, $p < .01$) contributed to the model at statistically significant levels while scenario empathy ($\beta = -.13$, $t(42) = -.90$, $p = .37$) did not contribute to the model at statistically significant levels. This indicates instructor flexibility contributes to self-efficacy; however, instructor empathy does not contribute to self-efficacy on the high-disclosure survey. See Table 3 for beta weights.

Table 3. *Beta Weights for High-Disclosure Survey.*

Variable	B	SE B	B
Scenario Empathy	-.096	.106	-.126
Scenario Flexibility	.510	.102	.704*
R^2		.420	
R^2_{adj}		.391	
F		14.457	

Note. * indicates a statistically significant predictor variable at $p < .05$.

Post Hoc Analyses

To determine whether the general trait variables empathy and flexibility varied after the manipulation check, four paired samples t -tests were run as post hoc tests. The post hoc tests were necessary to determine how the specific variables that contribute to self-efficacy changed after reading the scenario and, thus, to determine exactly what accounted for the significant difference in self-efficacy. The first paired samples t -test compared instructor empathy before and after the manipulation check on the low-disclosure survey. The analysis indicated a statistically significant difference between general empathy ($M = 4.38$; $SD = .58$) before the manipulation tests

as compared to scenario empathy ($M = 3.71$; $SD = .81$) after the manipulation check, $t(68) = 6.82$, $p < .01$. In other words, the statistically significant difference between general empathy and scenario empathy on the low-disclosure survey indicates that after reading the low-disclosure scenario, empathy decreased. The second paired sample t -test compared instructor flexibility before and after the manipulation check on the low-disclosure survey. The analysis also indicated a statistically significant difference between flexibility before the manipulation check as compared to after, $t(66) = 3.85$, $p < .01$. More specifically, there was a statistically significant difference between general flexibility ($M = 4.23$; $SD = .70$) and scenario flexibility ($M = 3.80$; $SD = .89$) on the low-disclosure survey, which indicates that after reading the low-disclosure scenario, flexibility went down.

The second set of paired samples t -tests compared empathy and flexibility for the high-disclosure survey. The third test compared instructor empathy before and after the manipulation check for the high-disclosure survey. The analysis indicated a statistically significant difference between empathy before the manipulation check as compared to after, $t(42) = 3.35$, $p < .01$. Specifically, there was a statistically significant difference between general empathy ($M = 4.22$; $SD = .76$) and scenario empathy ($M = 3.90$; $SD = .69$) on the high-disclosure survey, which indicates that after reading the high-disclosure scenario, empathy decreased. The final paired samples t -test compared instructor flexibility before and after the manipulation check for the high-disclosure survey. The analysis revealed a statistically significant difference between flexibility before the manipulation check as compared to after, $t(43) = 2.66$, $p = .01$. In other words, there was a statistically significant difference between general flexibility ($M = 4.30$; $SD = .59$) and scenario flexibility ($M = 3.99$; $SD = .13$) on the high-disclosure survey, which indicates that after reading the high-disclosure scenario, instructors were less flexible.

Discussion

The primary goal of this study was to determine if the amount of information a student self-discloses regarding a needed accommodation impacts an instructor's self-efficacy in making that accommodation. Specifically, instructors answered a series of questions about their general dispositions toward accommodating students with disabilities, including empathy and flexibility. The data analysis sought to determine if the level of self-disclosure presented in the survey scenarios impacted the instructor empathy and flexibility, which would, in turn, impact instructor self-efficacy in making accommodations.

Self-disclosure was manipulated through the use of two different survey scenarios. Participants read one of the two scenarios before they were asked questions regarding the amount of disclosure the instructor felt the student gave. The results of the independent samples t -test indicated that the manipulation was successful; instructors who read the low-disclosure scenarios felt they did not have enough information and instructors who read the high-disclosure scenarios felt they had adequate information, indicating that self-disclosure was manipulated successfully.

To determine instructor dispositions regarding their own empathy and flexibility as well as how they feel they would handle accommodation situations in general, questions were asked at the beginning of the survey. The ANOVA indicated that instructors with the low- and high-scenario surveys did not vary on their general instructor characteristics at statistically significant levels; thus, all instructors started with relatively equivalent levels of empathy and flexibility. Therefore, any changes in instructor characteristics after the scenario would be a result of the differences in the scenario.

It was hypothesized that the level of student self-disclosure regarding a needed accommodation would determine the amount of self-efficacy an instructor had in meeting that accommodation. This hypothesis was confirmed. The *t*-test indicated a statistically significant difference between the self-efficacy of instructors who received the low-disclosure survey and those who received the high-disclosure survey. Further, self-efficacy scores were higher for instructors who received the high-disclosure survey, indicating that the more a student discloses, the more self-efficacy an instructor will possess.

The research question asked which instructor characteristics will vary with student self-disclosure in predicting instructor self-efficacy in meeting accommodations. To answer the research question, two different regression models were run. The first regression model sought to determine how empathy and flexibility predicted instructor self-efficacy for the low-disclosure scenario. Both empathy and flexibility were significant contributors to instructor self-efficacy. Empathy, however, was a stronger predictor. The second regression model sought to determine how empathy and flexibility predicted instructor self-efficacy for the high-disclosure scenario. Empathy and flexibility together made up a significant amount of variance in instructor self-efficacy; however, only instructor flexibility was a statistically significant predictor of self-efficacy. This indicates that if a student discloses little information, the student needs an instructor to be both empathetic and flexible—but instructor empathy is more important to the desired outcome. Conversely, if a student discloses a lot, the student only needs the instructor to be flexible in order to meet the student's accommodation needs.

Post hoc tests were conducted to compare the levels of empathy and flexibility before participants read the scenario and after participants read the scenario for both the low- and high-disclosure surveys. The first of four paired sample *t*-tests measured empathy both before and after reading the low-disclosure survey. Results indicated that empathy decreased after reading the scenario. The second test measured flexibility both before and after reading the low-disclosure survey. Results indicated flexibility decreased after reading the low-disclosure survey. A third test was run to compare the empathy scores both before and after reading the high-disclosure survey. Results suggested that empathy decreased after reading the high disclosure survey. A final paired samples *t*-test was run to determine the changes in flexibility both before and after reading the high-disclosure survey. Results indicated that flexibility decreased after reading the high-disclosure survey. The decrease in empathy and flexibility after instructors read both the high- and low-disclosure survey suggests that although instructors generally view themselves as empathetic and flexible, when presented with an actual scenario, their empathy and flexibility decreases. Further, while the mean scores for empathy and flexibility decreased after reading both the low- and high-disclosure surveys, a comparison of the mean scores after reading the scenario indicated that empathy and flexibility scores were higher for participants that read the high-disclosure survey. Although empathy and flexibility decreased after reading the scenario, high disclosure still led to more empathy and flexibility than low disclosure.

Implications

Several practical implications emerge from this research. First, student self-disclosure significantly impacts instructor self-efficacy making an accommodation in that the more a student discloses, the more self-efficacy an instructor possesses making that accommodation. Instructors have indicated many reasons that they are uncertain whether they can meet accommodation needs; however, those reasons may not be the primary concern. Instead, the amount of student self-disclosure could be influencing an instructor's perceived ability to make an accommodation. For instructors, this means that they should not be influenced by a lack of information from students, as that lack of information may cause their uncertainty in making an accommodation.

Instead, the instructor could give students the benefit of the doubt that the accommodations are necessary, ask the students if they are comfortable providing more context regarding the need for an accommodation, or take time to gather more information about the disability on their own. With an understanding that a lack of student self-disclosure may cause a lack of instructor self-efficacy, instructors can adapt their responses to student requests for accommodations so they do not disadvantage the students. Further, models of self-advocacy for students needing accommodations could account for this finding. When teaching self-advocacy, disability service offices could explain to students that it may be beneficial to provide more context, if they are comfortable doing so, and that they are more likely to get what they need from an instructor if they do—which could reduce stigmatization. Models of self-advocacy advise that it is important for students to understand their personal needs and legal rights (Lynch & Gussel, 2001), and this study supports that suggestion. Moreover, the results of this study suggest that students could benefit from an understanding that their own self-disclosure of their accommodation needs and legal rights could provide instructors with the knowledge to comfortably make the accommodations, which knowledge instructors frequently report they lack (Murray, Flannery, et al., 2008; Trimmis & Bessas, 2016). If students understand how self-disclosure may enhance instructor self-efficacy, they may decide to provide the instructors with the information they need to have more self-efficacy making accommodations. This is consistent with Price and Gerber's (2001) suggestion that in the workplace, employees should weigh the pros and cons of self-disclosure when deciding whether or not to disclose a disability.

An interesting finding was that instructors' empathy and flexibility decreased after reading the survey scenario. This could be explained by a social desirability bias in the survey, as instructors initially want to say that they are flexible, empathetic, and able to make accommodations; however, when presented with an actual scenario, they feel less able to make the accommodation. Past research suggests that overall, faculty have positive attitudes and perceptions of students with accommodations; however, faculty feel they lack the necessary information to successfully make accommodations (Murray, Wren, et al., 2008; Trimmis & Bessas, 2016). In this study, instructors may have answered the general questions bearing in mind their overall positive attitude and their understanding that they should accommodate students. However, after reading the scenario, they may have realized they do not have an understanding of this accommodation; thus, they became uncomfortable with the situation and their empathy and flexibility decreased. Similarly, another explanation could be that instructors did hear enough information regarding the accommodation, but it is still not an accommodation they are willing to make.

Another explanation could be the nature of the accommodation requested. Instructors who have had firsthand experience with students with accommodations, and with a student's specific accommodation, report having more knowledge about disabilities and legislation and were more willing to spend time meeting a student's accommodation needs (Vogel, Leyser, Wyland, & Brulle, 1999). Given the recent nature of the anxiety disorder in this scenario, instructors may have never seen this type of accommodation, which could have affected their confidence in making the accommodation. This finding, that empathy and flexibility decreased after reading the scenario, is also vital for disability service offices to be aware of because, while faculty may report being able to meet accommodation needs, students with disabilities may be experiencing a different reaction upon disclosing their needed accommodations. It is critical for instructors to understand this in order to be cognizant that they may think they are more empathetic and flexible in relation to accommodations than they actually are, and in turn, they can make a more deliberate effort to be empathetic and flexible.

Another interesting finding was that the decrease in empathy was significant for participants who read the low-disclosure survey, but it was not significant for participants who read the high-disclosure survey. This means that the more information a student disclosed to instructors, the less the instructors relied on empathy their self-efficacy in making the accommodation. There are a number of potential explanations for this. First, self-disclosure may counterbalance empathy. The more information a student discloses to an instructor may negate the need for an instructor to rely on empathy to make the accommodation. Having empathy allows the instructor to understand the reason the student needs the accommodation, which is one variable that may motivate the instructor to make the accommodation. When a student discloses a little about the accommodation, instructors have to rely more heavily on their ability to understand why it is needed. Conversely, if a student discloses a lot of information, the instructor has enough information to understand the need for the accommodation, and the bigger concern is whether or not the instructor is flexible enough to make it, thus reducing the need for empathy. Another explanation could be that instructors who read the high-disclosure scenario no longer felt the need to feel sorry for or empathize with the student. Instead, instructors had all of the necessary information and acknowledged that all they had to do was be flexible enough to meet the accommodation, which they viewed as obtainable. On the contrary, when instructors read the low-disclosure scenario, they had to fill in information gaps on their own. This meant that instead of fully understanding the need for the accommodation, the instructor had to give the student the benefit of the doubt that the accommodation was needed, which relies more heavily on being empathetic. Overall, this finding suggests that the more information a student discloses, the less the student needs the instructor to be empathetic. Flexibility is the guiding variable for instructor self-efficacy in making an accommodation, as flexibility is what ultimately determines if the instructor meets the student's needs.

Problematically, instructor self-efficacy scores were low across both groups. While participants that read the high-disclosure scenario had higher self-efficacy, overall both groups had low self-efficacy scores. Although student self-disclosure may enhance instructor self-efficacy, the larger concern is that instructor self-efficacy is lacking as a whole. Past research has suggested conducting more training for university instructors regarding making accommodations (Cornett-DeVito & Worley, 2005; Denhart, 2008; Quinlan et al., 2012; Trimmis & Bessas, 2016), and this research supports that suggestion. Instructors, however, are reluctant to go to training, and disability service employees find that when training is conducted, the instructors who attend are already committed to best accommodation practices (Salzberg et al., 2002; Scott & Gregg, 2000). If disability services staff have a concern with faculty participation in training, they should consider stronger initiatives to recruit faculty to come to training sessions.

The results of this study can be better understood through attribution theory. When an instructor has a lack of self-efficacy making an accommodation, as is seen through this research, they likely indicate resistance in making the accommodation. If a student perceives that an instructor is not willing or able to make an accommodation, they may wrongfully assume the instructor does not believe in the student's ability to succeed in the course. Instructors need to be aware of this in order to instill motivation to succeed in their students.

Instructors also have both an ethical and legal responsibility to students needing accommodations. Since legal requirements mandate accommodations be made, an instructor has the responsibility to meet those requirements. Simply stating that they do not have the information to make an accommodation is not acceptable. An instructor must seek out the information needed to make an accommodation in order to comply with the law and to meet the needs of the student, whom the instructor is there to serve.

School administrators, especially department chairs, also need to support efforts to improve the services offered to students needing accommodations. Administrators need to understand the legal and ethical responsibilities of making accommodations so they can bestow upon employees the importance of this service. If an administrator chooses to make a priority of meeting the needs of students with accommodations, the administrator's subordinates are likely to mirror that behavior.

Current inefficiencies in the services offered to students needing accommodations cannot be mapped to a single entity; however, instructors need to understand that they are ultimately the responsible party. While students need to know their personal needs and legal rights, as they may provide instructors with key information needed to make an accommodation, every student deserves access to higher education regardless of an instructor's comfort making an accommodation. Some students require accommodations that enable them to learn at the same level as their peers. Instructors make the final decision as to whether or not those accommodations are enacted; however, they are influenced by administrators, disability service offices, and the students requesting the accommodations. This study supports the sentiments of Quinlan et al. (2012) that students should be expected to disclose their individual needs for learning; however, a student's effort to receive an accommodation should be met with effort from instructors.

Limitations and Suggestions for Future Research

There are limitations to this study that can be addressed through future research. All of the instructors surveyed were from the same, fairly homogenous, institution. Results from other institutions may vary if those institutions have different requirements or training for dealing with students needing accommodations. Future research should consider a more diverse sample and be conducted at different universities. Further, the anxiety disorder addressed could have been unlike many other situations instructors have encountered; thus, these findings may not be generalizable to all accommodation scenarios. Replication studies could use different disabilities and disclosure scenarios.

Another limitation is that the study does not control for how the information was communicated to the instructor in terms of the medium used or the communication style of the student requesting the accommodation. Future research should explore the type of information students disclose, such as whether they tell the instructor why they need an accommodation or if they disclose various ways instructors have helped them in the past. The study has little ecological validity, because the instructors simply read a scenario and answered questions; they did not actually experience the situation. To account for ecological validity, future research should use live actors, video recordings, or rely on instructors past experience as a way to present various scenarios to instructors.

Finally, instructors may have been primed as to the nature of the survey because the general-trait variable questions were asked at the beginning of the survey. This could have also inflated the scores of all of the questions, as there may have been a social desirability bias in the survey. Qualitative analysis such as focus groups or personal interviews should be conducted to generate a better understanding of how instructors react to students needing accommodations and why.

Conclusion

The current investigation suggests that self-disclosure enhances instructor self-efficacy in making accommodations. Conversely, instructors still lack self-efficacy overall in making accommodations. Additionally, instructor empathy and flexibility decreased after reading a scenario in which a student disclosed a needed accommodation on both high- and low-disclosure surveys. Although unique accommodations and various courses may initially impede the implementation of accommodations, instructors have a legal responsibility to meet the needs of students requiring accommodation. When individuals involved at all levels with students needing accommodations fail to meet student accommodation needs, they impede the students' ability to succeed in school.

References

- Americans With Disabilities Act of 1990, as Amended, 42 U.S.C. § 12101 *et seq.* (2008).
- Baer, W. (1997). Teaching strategies and accommodations for students with disabilities. In B. Hodge & J. Preston-Sabin (Eds.), *Accommodations—Or just good teaching? Strategies for teaching college students with disabilities* (pp. 126–131). Westport, CT: Praeger. [GS Search](#)
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY: W. H. Freeman. [GS Search](#)
- Barrett, B. (1997). Explaining learning disabilities to colleagues: Treatment and accommodation. In B. Hodge & J. Preston-Sabin (Eds.), *Accommodations—Or just good teaching? Strategies for teaching college students with disabilities* (pp. 2–4). Westport, CT: Praeger. [GS Search](#)
- Bento, R. F. (1996). Faculty decision-making about “reasonable accommodations” for disabled college students: Informational, ethical and attitudinal issues. *College Student Journal*, 30, 494–501. Retrieved from http://www.projectinnovation.biz/csj_2006.html
- Berman, J. (2004). *Empathetic teaching: Education for life*. Boston, MA: University of Massachusetts Press. [GS Search](#)
- Burgstahler, S., & Russo-Gleicher, R. J. (2015). Applying universal design to address the needs of postsecondary students on the autism spectrum. *Journal of Postsecondary Education and Disability*, 28(2), 199–212. Retrieved from <http://www.ahead.org/publications/jped> [GS Search](#)
- Cole, E. V., & Cawthon, S. W. (2015). Self-disclosure decisions of university students with learning disabilities. *Journal of Postsecondary Education and Disability*, 28(2), 163–179. Retrieved from <http://www.ahead.org/publications/jped> [GS Search](#)
- Cornett-Devito, M. M., & Worley, C. W. (2005). A front row seat: A phenomenological investigation of learning disabilities. *Communication Education*, 54, 312–333. <https://doi.org/10.1080/03634520500442178> [GS Search](#)
- Denhart, H. (2008). Deconstructing barriers: Perceptions of students labeled with learning disabilities in higher education. *Journal of Learning Disabilities*, 41, 483–497. <https://doi.org/10.1177/0022219408321151> [GS Search](#)
- Disabilities, Opportunities, Internetworking, and Technology. (2015, August 24). What is the difference between accommodation and modification for a student with a disability? Retrieved from University of Washington website: <http://www.washington.edu/doit/what-difference-between-accommodation-and-modification-student-disability>

- Docan-Morgan, T. (2011). "Everything changed": Relational turning point events in college teacher-student relationships from teachers' perspectives. *Communication Education*, 60, 20–50. <https://doi.org/10.1080/03634523.2010.497223> [GS Search](#)
- Frymier, A. B., & Wanzer, M. B. (2003). Examining differences in perceptions of students' communication with professors: A comparison of students with and without disabilities. *Communication Quarterly*, 51, 174–191. <https://doi.org/10.1080/01463370309370149> [GS Search](#)
- Hadley, W. (2016). The four-year college experience of one student with multiple learning disabilities. *College Student Journal*, 51, 19–28. Retrieved from <http://www.projectinnovation.com/college-student-journal.html> [GS Search](#)
- Hall, T., Vue, G., Strangman, N., & Meyer, A. (2003). *Differentiated instruction and implications for UDL implementation*. Wakefield, MA: National Center on Accessing the General Curriculum. (Links updated 2014). Retrieved August 1, 2012, from <http://aem.cast.org/about/publications/2003/ncac-differentiated-instruction-udl.html>
- Hartman-Hall, H. M., & Haaga, D. A. F. (2002). College students' willingness to seek help for their learning disabilities. *Learning Disability Quarterly*, 25, 263–274. <https://doi.org/10.2307/1511357> [GS Search](#)
- Hunter, M., & Barker, G. (1987). "If at first...": Attribution theory in the classroom. *Educational Leadership*, 45, 50–53. [GS Search](#)
- Integrating reasonable accommodations as a part of good teaching. (1997). In B. Hodge & J. Preston-Sabin (Eds.), *Accommodations—Or just good teaching Strategies for teaching college students with disabilities* (pp. 23–27). Westport, CT: Praeger. [GS Search](#)
- King, H. L., Aguinaga, N., O'Brien, C., Young, W., & Zgonc, K. (2010). Disability in higher education: A position paper. *American Annals of the Deaf*, 155, 386–391. Retrieved from <http://gupress.gallaudet.edu/annals/> <https://doi.org/10.1353/aad.2010.0019> [GS Search](#)
- Leithwood, K., & Beatty, B. (2008). *Leading with teacher emotions in mind*. Thousand Oaks, CA: Corwin Press. [GS Search](#)
- Lynch, R. T., & Gussel, L. (2001). Disclosure and self-advocacy regarding disability-related needs: Strategies to maximize integration in postsecondary education. *Journal of Counseling & Development*, 74, 352–357. <https://doi.org/10.1002/j.1556-6676.1996.tb01879.x> [GS Search](#)
- Madaus, J. W., Foley, T. E., McGuire, J. M., & Ruban, L. M. (2002). Employment self-disclosure of postsecondary graduates with learning disabilities: Rates and rationales. *Journal of Learning Disabilities*, 35, 364–369. <https://doi.org/10.1177/00222194020350040701> [GS Search](#)
- Murray, C., Flannery, B. K., & Wren, C. (2008). University staff members' attitudes and knowledge about learning disabilities and disability support services. *Journal of Postsecondary Education and Disability*, 21(2), 73–90. Retrieved from <http://www.ahead.org/publications/jped> [GS Search](#)
- Murray, C., Wren, C. T., & Keys, C. (2008). University faculty perceptions of students with learning disabilities: Correlates and group differences. *Learning Disability Quarterly*, 31, 95–113. [GS Search](#)
- National Center for Education Statistics. (2014). Chapter 3: Postsecondary education. In *Digest of education statistics: 2014*. Retrieved from http://nces.ed.gov/programs/digest/d14/ch_3.asp

- Newman, L. A., & Madaus, J. M. (2015). Reported accommodations and supports provided to secondary and postsecondary students with disabilities: National Perspective. *Career Development and Transition for Exceptional Individuals*, 38(3), 173–181. <https://doi.org/10.1177/2165143413518235> [GS Search](#)
- Orr, A. C., & Hammig, S. B. (2009). Inclusive postsecondary strategies for teaching students with learning disabilities: A review of the literature. *Learning Disability Quarterly*, 32, 181–196. <https://doi.org/10.2307/27740367> [GS Search](#)
- Palmer, C., & Roessler, R. T. (2000). Requesting classroom accommodations: Self-advocacy and conflict resolution training for college students with disabilities. *Journal of Rehabilitation*, 66, 38–43. [GS Search](#)
- Powell, R. G., & Powell, D. L. (2010). *Classroom communication and diversity: Enhancing instructional practice* (2nd ed.). New York, NY: Routledge. [GS Search](#)
- Price, L. A., & Gerber, P. J. (2001). At second glance: Employers and employees with learning disabilities in the Americans With Disabilities Act era. *Journal of Learning Disabilities*, 34, 202–210. <https://doi.org/10.1177/002221940103400301> [GS Search](#)
- Quinlan, M. M., Bates, B. R., & Angell, M. E. (2012). 'What can I do to help?': Postsecondary students with learning disabilities perception of instructors' classroom accommodations. *Journal of Research in Special Education Needs*, 12(4), 224–233. <https://doi.org/10.1111/j.1471-3802.2011.01225.x> [GS Search](#)
- Roberts, E. L., Ju, S., & Zhang, D. (2016). Review of practices that promote self-advocacy for students with disabilities. *Journal of Disability Policy Studies*, 26(4), 209–220. <https://doi.org/10.1177/1044207314540213> [GS Search](#)
- Salzberg, C. L., Peterson, L., Debrand, C. C., Blair, R. J., Carsey, A. C., & Johnson, A. S. (2002). Opinions of disability service directors on faculty training: The need, content, issues, formats, media, and activities. *Journal of Postsecondary Education and Disability*, 15(2), 101–114. Retrieved from <http://www.eric.ed.gov/contentdelivery/servlet/ERICServlet?accno=EJ653970> [GS Search](#)
- Scott, S. S., & Gregg, N. (2000). Meeting the evolving education needs of faculty in providing access for college students with LD. *Journal of Learning Disabilities*, 33(2), 158–167. <https://doi.org/10.1177/002221940003300204> [GS Search](#)
- Simonds, C. J., & Cooper, P. J. (2011). *Communication for the classroom teacher* (9th ed.) Boston, MA: Pearson.
- Test, D. W., Fowler, C. H., Wood, W. M., Brewer, D. M., & Eddy, S. (2005). A conceptual framework of self-advocacy for students with disabilities. *Remedial and Special Education*, 26(1), 43–54. <https://doi.org/10.1177/07419325050260010601> [GS Search](#)
- Trimmis, N., & Bessas, A. (2016). University faculty beliefs about students with learning disabilities. *Educational Alternatives*, 14, 287–295. Retrieved from <https://www.scientific-publications.net/en/open-access-journals/educational-alternatives/> [GS Search](#)
- Vogel, S. A., Leyser, Y., Wyland, S., & Brulle, A. (1999). Students with learning disabilities in higher education: Faculty attitude and practices. *Learning Disabilities Research & Practice*, 14(3), 173–186. https://doi.org/10.1207/sldrp1403_5 [GS Search](#)
- Weiner, B. (1979). A theory of motivation for some classroom experiences. *Journal of Educational Psychology*, 71(1), 3–25. <https://doi.org/10.1037/0022-0663.71.1.3> [GS Search](#)

Weiner, B. (1986). *An attribution theory of motivation and emotion*. New York, NY: Springer-Verlag. <https://doi.org/10.1007/978-1-4612-4948-1> [GS Search](#)

Weiner, B. (2010). Attribution theory. In Peterson, P. L., Baker, E. L., & McGaw, B. (Eds.), *International Encyclopedia of Education* (3rd ed., Vol. 8, pp. 558–563). <https://doi.org/10.1016/B978-0-08-044894-7.00600-X>